

REMARKS

Claims 59 and 65 are currently amended. Claims 4, 25, 33, 53 and 80 have been canceled. Claims 1, 5, 22, 26, 30, 34, 50, 54, and 77 were previously amended. Claims 1-3, 5-24, 26-32, 34-52, 54-79 remain in the application for consideration. In view of the following amendments and/or remarks, Applicant respectfully requests that the application be forwarded onto issuance.

§112 Rejections

Claims 59 and 65 stand rejected under 35 U.S.C. §112, second paragraph, as being indefinite.

In this regard, Applicant has appropriately amended claims 59 and 65 thus traversing the Office's rejection.

§§ 102 and 103 Rejections

Claims 1-3, 5-12, 14, 15, 22-24, 26-32, 34-40, 42, 43, 50-52, 54-70, and 74-79 stand rejected under 35 U.S.C. §103(a) as being obvious over U.S. Patent No. 6,401,051 to Merriam (hereinafter "Merriam") in view of U.S. Patent No. 5,539,922 to Wang (hereinafter "Wang").

Claims 13, 16-21, 41 44-49, and 71-73 stand rejected under 35 U.S.C. §103(a) as being obvious over Merriam in view of Wang and further view of U.S. Patent No. 6,301,584 to Ranger (hereinafter "Ranger").

Before undertaking a discussion of the substance of the Office's rejections, the following discussion of the §103 Standard, as well as the references to Merriam and Wang is provided.

1 The § 103 Standard

2 To establish a *prima facie* case of obviousness, three basic criteria must be
3 met. *First, there must be some suggestion or motivation, either in the references*
4 *themselves or in the knowledge generally available to one of ordinary skill in the*
5 *art, to modify the reference or to combine reference teachings.* *In re Jones*, 958
6 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992); *In re Fine*, 837 F.2d 1071, 5
7 USPQ2d 1596 (Fed. Cir. 1988). Second, there must be a reasonable expectation
8 of success. *In re Merck & Co., Inc.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir.
9 1986). Finally, the prior art reference (or references when combined) must teach
10 or suggest all the claim limitations. *In re Royka*, 490 F.2d 981, 180 USPQ 580
11 (CCPA 1974). The teaching or suggestion to make the claimed combination and
12 the reasonable expectation of success must both be found in the prior art, not in
13 applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1439 (Fed. Cir.
14 1991).

15 Hence, when patentability turns on the question of obviousness, the search
16 for and analysis of the prior art includes evidence relevant to the finding of
17 whether there is a teaching, motivation, or suggestion to select and combine the
18 references relied on as evidence of obviousness. See, e.g., *McGinley v. Franklin*
19 *Sports, Inc.*, 262 F.3d 1339, 1351-52, 60 USPQ2d 1001, 1008 (Fed. Cir. 2001)
20 ("the central question is whether there is reason to combine [the] references," a
21 question of fact drawing on the Graham factors). The mere fact that references *can*
22 be combined or modified does not render the resultant combination obvious unless
23 the prior art also suggests the desirability of the combination. *In re Mills*, 916 F.2d
24 680, 16 USPQ2d 1430 (Fed. Cir. 1990). "To support the conclusion that the
25 claimed invention is directed to obvious subject matter, either the references must

1 expressly or impliedly suggest the claimed invention or *the examiner must*
 2 *present a convincing line of reasoning as to why the artisan would have found*
 3 *the claimed invention to have been obvious in light of the teachings of the*
 4 *references.*" *Ex parte Clapp*, 227 USPQ 972, 973 (Bd.Pat. App. & Inter.
 5 1985)(emphasis added).

6 Chapter 2100 of the MPEP provides further instruction as follows: "[w]ith
 7 regard to rejections under 35 U.S.C. 103, the examiner must provide evidence
 8 which as a whole shows that the legal determination sought to be proved (i.e., the
 9 reference teachings establish a *prima facie* case of obviousness) is more probable
 10 than not." *See* MPEP 2142.

11 "The factual inquiry whether to combine references must be thorough and
 12 searching." *Id.* It must be based on objective evidence of record. This precedent
 13 has been reinforced in myriad decisions, and cannot be dispensed with. See, e.g.,
 14 *Brown & Williamson Tobacco Corp. v. Philip Morris Inc.*, 229 F.3d 1120, 1124-
 15 25, 56 USPQ2d 1456, 1459 (Fed. Cir. 2000) ("a showing of a suggestion,
 16 teaching, or motivation to combine the prior art references is an 'essential
 17 component of an obviousness holding'") (quoting *C.R. Bard, Inc., v. M3 Systems,*
 18 *Inc.*, 157 F.3d 1340, 1352, 48 USPQ2d 1225, 1232 (Fed. Cir. 1998)); *In re*
 19 *Dembiczak*, 175 F.3d 994, 999, 50 USPQ2d 1614, 1617 (Fed. Cir. 1999) ("Our
 20 case law makes clear that the best defense against the subtle but powerful
 21 attraction of a hindsight-based obviousness analysis is rigorous application of the
 22 requirement for a showing of the teaching or motivation to combine prior art
 23 references."); *In re Dance*, 160 F.3d 1339, 1343, 48 USPQ2d 1635, 1637 (Fed.
 24 Cir. 1998) (there must be some motivation, suggestion, or teaching of the
 25 desirability of making the specific combination that was made by the applicant); *In*

1 *re Fine*, 837 F.2d 1071, 1075, 5 USPQ2d 1596, 1600 (Fed. Cir. 1988) ("teachings
 2 of references can be combined only if there is some suggestion or incentive to do
 3 so.") (emphasis in original) (quoting *ACS Hosp. Sys., Inc. v. Montefiore Hosp.*,
 4 732 F.2d 1572, 1577, 221 USPQ 929, 933 (Fed. Cir. 1984)); *In re Fritch*, 23
 5 USPQ2d 1780, 1784 (Fed. Cir. 1992) ("It is impermissible to use the claimed
 6 invention as an instruction manual or 'template' to piece together the teachings
 7 of the prior art so that the claimed invention is rendered obvious. [O]ne cannot
 8 use hindsight reconstruction to pick and choose among isolated disclosures in
 9 the prior art to deprecate the claimed invention.") (quoting *In Re Fine*, 837 F.2d
 10 1071, 1075, 5 USPQ2d 1596, 1600 (Fed. Cir. 1988)).

11 The need for specificity pervades this authority. See, e.g., *In re Kotzab*,
 12 217 F.3d 1365, 1371, 55 USPQ2d 1313, 1317 (Fed. Cir. 2000) ("particular
 13 findings must be made as to the reason the skilled artisan, with no knowledge of
 14 the claimed invention, would have selected these components for combination in
 15 the manner claimed").

16 The Merriam Reference

17 Merriam discloses a method and apparatus for locating buried objects, such
 18 as such as underground cables, prior to digging at a particular location. Merriam
 19 instructs that a positioning device is taken to the location where digging is to take
 20 place and receives positioning signals from one or more positioning stations.
 21 Based upon the positioning signals, the positioning device determines its current
 22 location and hence the location of the dig site. Once the current location is
 23 determined, a registry database containing the locations of previously buried
 24 objects is accessed. The registry database is queried for all locations within a

1 selected distance of the current location which have buried objects. If this query
2 returns no records, then Merriam instructs that it is probably safe to dig at the
3 current location. On the other hand, if the query returns one or more locations,
4 then Merriam instructs that further digging at the current location should either be
5 avoided or performed with great caution.

6 Merriam's Fig. I provides an illustration of its system, generally at 100.
7 There, system 100 comprises one or more positioning devices 102, a central
8 computer 104, and one or more positioning stations 106. Merriam instructs that
9 the positioning device 102 is the component that is taken to a dig site and that its
10 responsibility is to determine its own current location, and hence the current
11 location of the dig site. This determination is made based upon positioning signals
12 provided to the positioning device 102 by the positioning stations 106. Once the
13 current location is determined, the central computer 104 is consulted, via a
14 communications link 108, to determine whether there are any buried objects at or
15 near the current location. The central computer 104, which maintains a registry
16 database 110 of locations at which objects have been previously buried, makes this
17 determination by searching the database 110 for all locations within a certain
18 distance of the current location. Thereafter, the central computer 104 provides to
19 the positioning device 102, via the communications link 108, all of the locations
20 retrieved from the database 110. Based upon the location information received
21 from the central computer 104, the positioning device 102 provides to a user an
22 indication as to whether there are buried objects within relative close proximity to
23 the current location. This indication allows the user to determine whether he
24 should or should not dig at the current location.

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1 The Wang Reference

2 Wang discloses communication systems for portable transceivers and
3 methods and systems that trace the locations of portable transceivers.

4 Perhaps a good place to start a discussion of Wang is with its Fig. 1. There,
5 Wang shows a hierarchical structure for a communication system 100. Wang
6 instructs that covered area of the communication system 100 is organized into a
7 hierarchical structure having several layers. The highest layer may be the earth
8 102 followed by country 104, state 106, area code 108, city 110, and the lowest
9 layer (Layer 1) is a primary layer that comprises a plurality of independent paging
10 regions (cells) 112. According to Wang, each region defines an area or location in
11 which one may be paged. Each layer 1 cell comprises one or more base stations.
12 Layer 1 may comprise a radio telephone communication system (e.g., Digital
13 European Cordless Telephone).

14 As Wang instructs, each block in layers 2 through 6 (the secondary layers)
15 is a communication service node representing a switching station having
16 computing and memory means (i.e., all layers >1 are intelligent layers). The
17 memory means (at each of the switching stations) comprises a database for
18 tracking the location of customers (i.e., users of portable communication units that
19 are registered in the system). Thus, what begins to emerge from a preliminary
20 overview of Wang is a system in which transceivers are tracked by a number of
21 geographically-separated switching stations, each with computing and memory
22 means which includes a database to track customer locations.

23 The operation of Wang's system is probably best appreciated from its Fig.
24 5. There, Wang shows a diagram illustrating an example of how a customer or
25 transceiver is traced via an address chain. In this example, an entity known as a

1 "called party" (unit 24) has a home address in cell 1,d, and a current address at cell
2 8,d. In a first case, the communication unit 20, located in cell 2,c, places a call to
3 communication unit 24. To do this, Wang instructs that the communication unit
4 20 dials the home address number of the called party. The calling party's
5 connection request is received by a base station at cell 2,c, and it is passed on to
6 the Boynton node in layer 2. That is, the connection request is passed on to a
7 different switching station with its own computing and memory means, as noted
8 above.

9 At the Boynton node, the corresponding database is searched for an entry
10 pertaining to the called party. In this case an entry is found in the database. The
11 entry contains the home address (HA) of the called party and an "OUT" indication
12 which indicates that the transceiver is outside of the covered region associated
13 with the Boynton node. This being the case, the call is then forwarded along the
14 address chain to the "407" node of layer 3, where the corresponding database also
15 contains the home address of the called party and an "OUT" indication which
16 indicates that the transceiver is outside of the covered region associated with the
17 "407" node. Thus, the connection request is further traced up through the Florida
18 node of layer 4, also indicating that the called party is "OUT". Then, in the U.S.A.
19 node of layer 5, with its associated computing and memory means (i.e. database),
20 indicates that the portable device 24 is in Georgia. The tracing then continues to
21 the Georgia node, where the area code "404" is indicated. Thereafter, the tracing
22 process continues to the "404" node, where "Atlanta" is indicated. Searching in
23 the Atlanta database reveals the location of the portable communication unit 24,
24 and the requested connection is made.

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With respect to updating and maintaining all of the databases, Wang instructs as follows. The database updating process is initiated by the portable communication units. Each base station continuously transmits its subsystem identification information. By monitoring this information from the surrounding bases, an active portable communication unit is able to select a desired base station (e.g., the strongest base) and lock on to it. Whenever a new strongest base station is found, up to two messages may be transmitted to the associated bases to update the address chains. The address of the base to which the portable communication unit is locking is called the current address and the address of the base of the new strongest base is called the new address.

The Claims

Claim 1 recites:

- determining whether any of a number of context providers are available to provide context information that can be processed by the computing device to ascertain its context;
- receiving context information from one or more of the context providers that are determined to be available; and
- processing the context information on the computing device to determine the context of the computing device, wherein the processing of the information comprises:
 - mapping the context information to a node on a hierarchical tree structure that is carried on the device, the hierarchical tree structure comprising multiple nodes that represent physical or logical entities; and
 - traversing one or more nodes of the tree structure to ascertain a complete context.

In making out the rejection of this claim, the Office argues that Merriam discloses all recited features but is "silent as to the specifics of how the location is

1 determined". The Office then characterizes Wang as *analogous art* (with respect
2 to Merriam) and argues that it discloses a communication system with a
3 hierarchical system of nodes organized into node trees. The Office notes that
4 Wang's hierarchical system is capable of tracking the location of a transceiver as it
5 moves between nodes of the tree structure. Given these two references, the Office
6 argues that their combination would render the subject matter of this claim
7 obvious. In support of its argument, the Office argues that the skilled artisan
8 would have been motivated to modify Merriam with Wang's hierarchical system
9 "in order to determine the location of the device".

10 Applicant respectfully disagrees with the Office's obviousness rejection
11 and reminds the Office that, as noted above, there must be some suggestion or
12 motivation, either in the references themselves or in the knowledge generally
13 available to one of ordinary skill in the art, to modify the reference or to combine
14 reference teachings. Here, Merriam and Wang contain no such suggestion or
15 motivation. Furthermore, the Office bears the burden of explaining "why the
16 combination of the teachings is proper." (MPEP §2142). Here, the Office's only
17 attempt at such an explanation is to state that an artisan would have been
18 motivated to modify Merriam with the teachings of Wang "in order to determine
19 the location of the device". However, this reasoning is misplaced and fails to
20 explain *why* the combination is proper because Merriam *already provides for*
21 determining the position of the device.

22 For example, Applicant respectfully directs the Office's attention to column
23 3, lines 5-10, and column 3, line 64 through column 4, line 6, of Merriam, which
24 are reproduced respectively below (emphasis added):

1 In system 100, the positioning device 102 is the component
2 that is taken to a dig site. It is the responsibility of the positioning
3 device 102 *to determine its own current location*, and hence the
4 current location of the dig site. *This determination is made based*
5 *upon positioning signals provided to the positioning device 102 by*
6 *the positioning stations 106.*

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Positioning system 218 comprises an input mechanism (such as a receiving mechanism) for *receiving positioning signals from the positioning stations 106*, a determining mechanism for *determining a current location based upon the positioning signals*, and an output mechanism for providing the current location to the processor 212. For purposes of the present invention, *the positioning system 218 is one that is capable of determining a current location accurate to within several feet*. Positioning systems 218 having this degree of granularity are currently commercially available.

Thus, it remains unclear why an artisan would have been motivated to modify Merriam with the teachings of Wang "in order to determine the location of the device" when Merriam *already provides for* determining the position of the device. Accordingly, the motivation to combine these references, i.e. to determine the location of the device, is misplaced at best. As such, the Office has failed to establish a *prima facie* case of obviousness and for at least this reason, this claim is allowable.

Furthermore, any motivation to modify Merriam with the teachings of Wang appears even less plausible when the disparity between these references is considered. Specifically, Merriam addresses the problem of locating buried objects prior to digging at a current location. In Merriam, a positioning device determines its current location and whether it is safe to dig *at that current location*. Thus, it is of no consequence where the positioning device has been in the past. Obviously then, Merriam's system and method has no need whatsoever

1 for tracking its positioning device because the only thing that is of any
2 consequence with respect to the next location, is whether it is safe to dig at that
3 next location. In contrast, Wang is directed toward an entirely different field of
4 endeavor and is pertinent to an entirely different problem. Specifically, Wang is
5 directed toward the problem of *tracking* customers in a personal communication
6 system and teaches tracking the location of a transceiver as it moves between ports
7 and trees of the system. Therefore, Merriam and Wang are properly characterized
8 as *non-analogous art* with respect to each other, rather than *analogous art*, as the
9 Office argues.

10 In this regard, Applicant reminds the Office, as noted above, that “[i]t is
11 impermissible to use the claimed invention as an instruction manual or ‘template’
12 to piece together the teachings of the prior art so that the claimed invention is
13 rendered obvious. [O]ne cannot use hindsight reconstruction to pick and choose
14 among isolated disclosures in the prior art to deprecate the claimed invention.”
15 (quoting *In Re Fine*, 837 F.2d 1071, 1075, 5 USPQ2d 1596, 1600 (Fed. Cir.
16 1988)). Applicant respectfully submits that here, in light of the Office’s misplaced
17 stated motivation and the disparity of Merriam and Wang, it appears that the
18 Office has impermissibly used hindsight reconstruction by relying on Applicant’s
19 disclosure as an instruction manual or “template” to piece together the teachings of
20 Merriam and Wang in such a way as to characterize this claim as obvious.

21 Additionally, Applicant submits that modifying Merriam by implementing
22 Wang’s hierarchical system would appear to render Merriam unsatisfactory for its
23 intended purpose of locating buried objects such as telephone, coaxial, and fiber
24 optic cables. Specifically, as noted above, in Wang the *covered area* is organized
25 into a hierarchical structure having several layers, the lowest of which is

1 comprised of independent paging regions or cells. It would appear that a cell, as
2 disclosed by Wang, would be a much larger area than would be required by
3 Merriam to determine a device's location so as to be accurate to within several
4 feet. Thus, modifying Merriam with such a system would render Merriam
5 unsatisfactory for its intended purpose because, without such accuracy, Merriam's
6 determining mechanism would be unable to ascertain whether small objects (such
7 as a cable) are buried at a particular digging location. Applicant respectfully
8 reminds the Office that "[i]f a proposed modification would render the prior art
9 invention being modified unsatisfactory for its intended purpose, then there is no
10 suggestion or motivation to make the proposed modification." (*In re Gordon*, 733
11 F.2d 900, 221 USP W 1125 (Fed. Cir. 1984); see also MPEP 2143.01).

12 Furthermore, such a modification to Merriam would impermissibly change
13 its principle of operation because, as noted above, the positioning system device of
14 Merriam comprises an input mechanism for receiving positioning station signals
15 and a determining mechanism *based upon the received positioning signals*. In this
16 way, the positioning device determines its current location and whether it is safe to
17 dig at that current location. In Wang, a transceiver is tracked as it moves through
18 ports and trees of the defined system. This is initiated by an entity initially calling
19 a party, thus initiating a connection request. In this respect, as discussed above,
20 transceivers in Wang are tracked by a number of geographically-separated
21 switching stations and do not determine their location by receiving positioning
22 system signals. Thus, modifying Merriam by implementing the teachings of
23 Wang would radically alter the way in which the location of Merriam's
24 positioning device would be determined. That is, with Wang's teaching
25 incorporated therein, Merriam's device would no longer be able to determine its

1 own location. Rather, some other entity would have to determine Merriam's
2 location for it. In this regard, Applicant respectfully reminds the Office that "[i]f
3 the proposed modification of the prior art would change the principle of operation
4 of the prior art invention being modified, then the teachings of the references are
5 not sufficient to render the claims *prima facie* obvious." (MPEP 2143.01).

6 In view of the above discussion, the Office has not established a *prima
7 facie* case of obviousness. Hence, for at least this reason, this claim is allowable.

8 **Claims 2, 3 and 5-21** depend from claim 1 and are allowable as depending
9 from an allowable base claim. These claims are also allowable for their own
10 recited features which, in combination with those recited in claim 1, are neither
11 disclosed nor suggested in the references of record, either singly or in combination
12 with one another. In addition, given the allowability of these claims, the rejection
13 of claims 13 and 16-21 over the further combination with Ranger is not seen to
14 add anything of significance.

15 **Claim 22** recites one or more computer-readable media having computer-
16 readable instructions thereon which, when executed by a computing device, cause
17 the computing device to:

- 18 • determine whether any of a number of context providers are
19 available to provide context information that can be processed by the
computing device to ascertain its context;
- 20 • receive context information from one or more of the context
providers that are determined to be available; and
- 21 • process the context information on the computing device to
determine the context of the computing device by:
 - 22 ○ mapping the context information to a node on a hierarchical
tree structure that is carried on the device, the hierarchical
tree structure comprising multiple nodes that represent
physical or logical entities; and

- 1 ○ traversing one or more nodes of the tree structure to ascertain
2 a complete context.

3 In making out the rejection of this claim, the Office uses the same argument
4 and reasoning as it did in making out the rejection of claim 1. As noted and for all
5 of the reasons above, the Office has failed to establish a *prima facie* case of
6 obviousness. As such, this claim is allowable.

7 **Claims 23, 24 and 26-29** depend from claim 22 and are allowable as
8 depending from an allowable base claim. These claims are also allowable for their
9 own recited features which, in combination with those recited in claim 22, are
10 neither disclosed nor suggested in the references of record, either singly or in
11 combination with one another.

12 **Claim 30** recites a method of determining the location of a computing
13 device comprising:

- 14 ● determining whether any of a number of location providers are
15 available to provide location information that can be processed by
16 the computing device to ascertain its location;
17 ● receiving location information from one or more of the location
18 providers that are determined to be available; and
19 ● processing the location information on the computing device to
20 determine the location of the computing device, wherein the
21 processing of the information comprises:
22 ○ mapping the location information to a node on a hierarchical
23 tree structure that is carried on the device, the hierarchical
24 tree structure comprising multiple nodes that represent
25 physical or logical entities; and
 ○ traversing one or more nodes of the tree structure to ascertain
 a complete location.

26 In making out the rejection of this claim, the Office uses the same argument
27 and reasoning as it did in making out the rejection of claim 1. As noted and for all

1 of the reasons above, the Office has failed to establish a *prima facie* case of
2 obviousness. As such, this claim is allowable.

3 **Claims 31, 32, and 34-49** depend from claim 30 and are allowable as
4 depending from an allowable base claim. These claims are also allowable for their
5 own recited features which, in combination with those recited in claim 30, are
6 neither disclosed nor suggested in the references of record, either singly or in
7 combination with one another. In addition, given the allowability of these claims,
8 the rejection of claims 41 and 44-49 over the further combination with Ranger is
9 not seen to add anything of significance.

10 **Claim 50** recites one or more computer-readable media having computer-
11 readable instructions thereon which, when executed by a computing device, cause
12 the computing device to:

- 13 • determine whether any of a number of location providers are
14 available to provide location information that can be processed by
15 the computing device to ascertain its location;
- 16 • receive location information from one or more of the location
17 providers that are determined to be available; and
- 18 • process the location information on the computing device to
19 determine the location of the computing device by:
 - 20 ○ mapping the context information to a node on a hierarchical
21 tree structure that is carried on the device, the hierarchical
22 tree structure comprising multiple nodes that represent
23 physical or logical entities; and
 - 24 ○ traversing one or more nodes of the tree structure to ascertain
25 a complete context.

26 In making out the rejection of this claim, the Office uses the same argument
27 and reasoning as it did in making out the rejection of claim 1. As noted and for all
28

1 of the reasons above, the Office has failed to establish a *prima facie* case of
2 obviousness. As such, this claim is allowable.

3 **Claims 51, 52, and 54-69** depend from claim 50 and are allowable as
4 depending from an allowable base claim. These claims are also allowable for their
5 own recited features which, in combination with those recited in claim 50, are
6 neither disclosed nor suggested in the references of record, either singly or in
7 combination with one another.

8 **Claim 70** recites a method of determining a current context of a computing
9 device comprising:

- 10 • determining a current context of the device by:
 - 11 ○ receiving context information from multiple different context providers;
 - 12 ○ mapping the context information to a node of a hierarchical tree structure that is carried by the device and having multiple nodes each of which represent a physical or logical entity; and
 - 13 ○ traversing the hierarchical tree structure to ascertain a complete device context;
- 14 • receiving additional context information from one or more context providers; and
- 15 • updating the current context of the device by:
 - 16 ○ mapping the context information to a node of the hierarchical tree structure that is carried by the device; and
 - 17 ○ traversing the hierarchical tree structure to ascertain a complete device context.

21 In making out the rejection of this claim, the Office argues that Merriam
22 discloses all recited features but is "silent as to the specifics of how the location is
23 determined". In this respect, the Office Argues that Fig. 3 of Merriam shows
24 transporting the device 302 and determining the current location 306 and that

1 "updating the context information when the location changes is inherently
2 implied". The Office then relies on Wang (characterizing it as "analogous art"
3 with respect to Merriam) and argues that it discloses a communication system with
4 a hierarchical system of nodes organized into node trees. The Office notes that
5 Wang's hierarchical system is capable of tracking the location of a transceiver as it
6 moves between nodes of the tree structure. Given these two references, the Office
7 argues that their combination would render the subject matter of this claim
8 obvious. In support of its argument, the Office argues that the skilled artisan
9 would have been motivated to modify Merriam with Wang's hierarchical system
10 "in order to determine the location of the device".

11 Applicant respectfully disagrees with the Office's obviousness rejection
12 and submits that, as discussed above, Merriam and Wang contain no suggestion or
13 motivation to modify Merriam with the teachings of Wang. In this regard, the
14 Office's stated motivation to combine these references, i.e. to determine the
15 location of the device, is misplaced and fails to explain *why* the combination is
16 proper because Merriam *already provides for* determining the position of the
17 device. In addition, it appears that the Office has impermissibly used hindsight
18 reconstruction by relying on Applicant's disclosure as an instruction manual or
19 "template" to piece together the teachings of Merriam and Wang in such a way as
20 to characterize this claim as obvious. Furthermore, as discussed above, modifying
21 Merriam by implementing Wang's hierarchical system would appear to render
22 Merriam unsatisfactory for its intended purpose and would impermissibly change
23 its principle of operation. As such, the Office has failed to establish a *prima facie*
24 case of obviousness and for at least this reason, this claim is allowable.

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1 In view of the above discussion, the Office has not established a *prima
2 facie* case of obviousness. Hence, for at least this reason, this claim is allowable.

3 Claims 71-76 depend from claim 70 and are allowable as depending from
4 an allowable base claim. These claims are also allowable for their own recited
5 features which, in combination with those recited in claim 70, are neither disclosed
6 nor suggested in the references of record, either singly or in combination with one
7 another. In addition, given the Office's failure to establish a *prima facie* case of
8 obviousness with regards to the combination of Merriam and Wang, the rejections
9 of claims 71-73 over the further combination with Ranger are not seen to add
10 anything of significance.

11 **Claim 77 recites a computing device comprising:**

- 12 • a computer-readable medium; and
- 13 • a context service module on the computer-readable medium and
14 configured to process information from multiple different context
15 providers to determine a current device context, the context service
module being configured to:
 - 16 ○ determine whether any of a number of context providers are
available to provide context information that can be processed
by the computing device to ascertain its context;
 - 17 • receive context information from one or more of the context
providers that are determined by the device to be available; and
 - 18 • process the context information on the computing device to
determine the context of the computing device by:
 - 19 ○ mapping the context information to a node on a hierarchical
tree structure that is carried on the device, the hierarchical
tree structure comprising multiple nodes that represent
physical or logical entities; and
 - 20 ○ traversing one or more nodes of the tree structure to ascertain
a complete context.

1 In making out the rejection of this claim, the Office uses the same argument
2 and reasoning as it did in making out the rejection of claim 1. As noted and for all
3 of the reasons above, the Office has failed to establish a *prima facie* case of
4 obviousness. As such, this claim is allowable

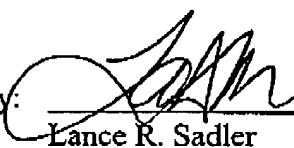
5 **Claims 78 and 79** depend from claim 77 and are allowable as depending
6 from an allowable base claim. These claims are also allowable for their own
7 recited features which, in combination with those recited in claim 77, are neither
8 disclosed nor suggested in the references of record, either singly or in combination
9 with one another.

10
11 **Conclusion**

12 All of the claims are in condition for allowance. Accordingly, Applicant
13 requests a Notice of Allowability be issued forthwith. If the Office's next
14 anticipated action is to be anything other than issuance of a Notice of Allowability,
15 Applicant respectfully requests a telephone call for the purpose of scheduling an
16 interview.

17 Respectfully Submitted,

18 Dated: 7/25/05

19 By: 
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